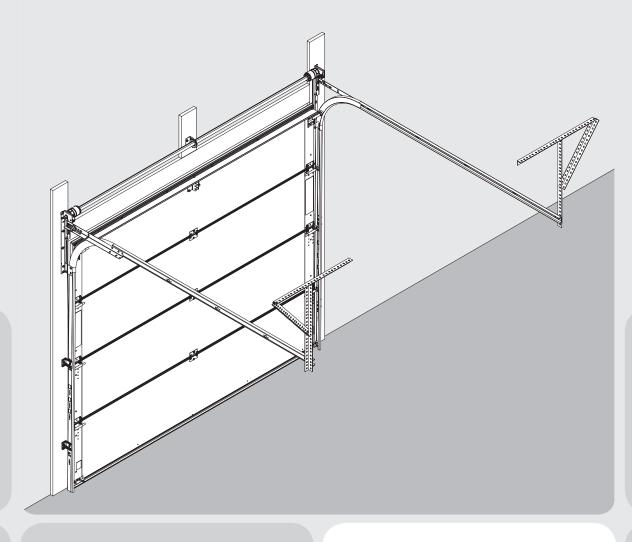


# 9800 DOORS

#### TorqueMaster® Plus - Single and Double Spring

Installation Instructions and Owner's Manual



Wayne-Dalton, a Division of Overhead Door Corporation P.O. Box 67, Mt. Hope, OH 44660 www.Wayne-Dalton.com

#### **IMPORTANT NOTICE!**

Read these instructions carefully before attempting installation. If in question about any of the procedures, do not perform the work. Instead, have a qualified door agency do the installation or repairs.

Table of Contents	
Important Safety Instructions	2
Package Contents	
Door Section Identification	
Tools Required	
Pre-Installation	
Removing The Old Door	
Preparing The Opening	10
Installation	11-32
Optional Installations	33-34
Side Lock	33
Pull Rope	33
Trolley Operator	
Maintenance	35-36
Cleaning	35
Painting Instructions	
•	
Warranty	37
Dealer Locator Information	
200.0. 200000 11100111000011111111111111	

#### **Definition of key words used in this manual:**

#### **△ WARNING**

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

**CAUTION:** PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

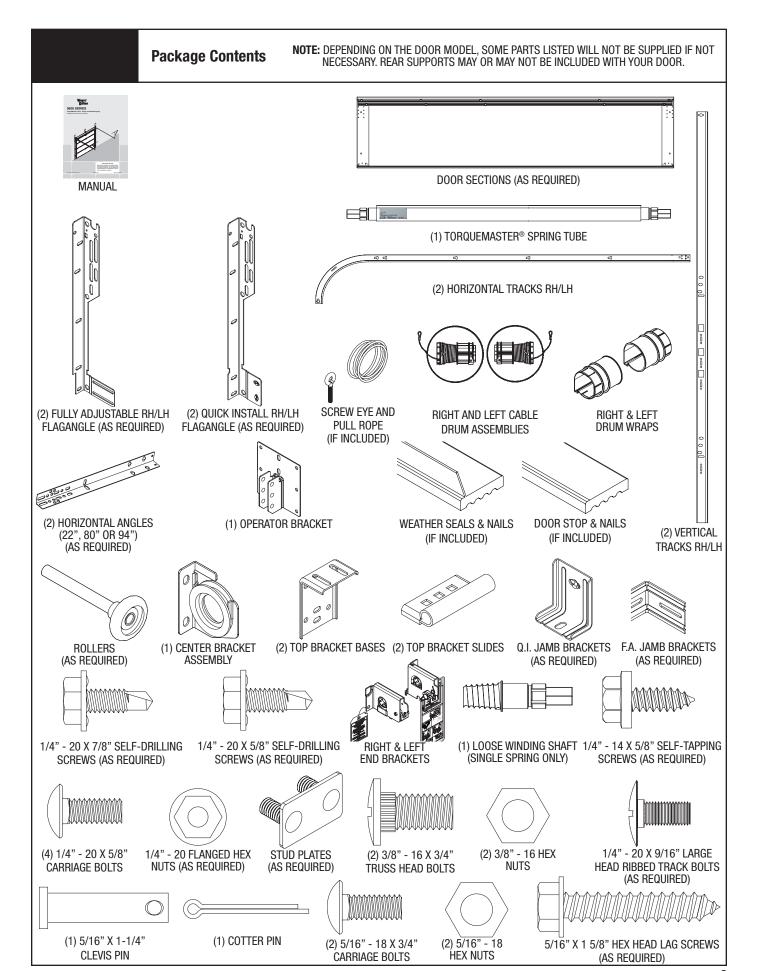
**IMPORTANT:** REQUIRED STEP FOR SAFE AND PROPER DOOR OPERATION.

**NOTE:** Information assuring proper installation of the door.

# WARNING TO AVOID POSSIBLE INJURY, READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A QUALIFIED DOOR AGENCY DO THE INSTALLATION OR REPAIRS.

- 1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
- 2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
- 3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
- 4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
- 5. Doors 12' 0" wide and over should be installed by two persons, to avoid possible injury.
- Operate door ONLY when it is properly adjusted and free from obstructions.
- 7. If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/or repairs made by a trained door system technician using proper tools and instructions.
- 8. DO NOT stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
- DO NOT place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
- DO NOT permit children to operate garage door or door controls.
   Severe or fatal injury could result, should the child become entrapped between the door and the floor.
- 11. Due to constant extreme spring tension, DO NOT attempt any adjustment, repair or alteration to any part of the door, especially to springs, spring brackets, bottom corner brackets, red colored fasteners, cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
- 12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
- 13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer's instructions.
- 14. VISUALLY inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
- 15. Test electric opener's safety features monthly, following opener manufacturer's instructions.
- NEVER hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

After installation is complete, fasten this manual near garage door.



#### **Door Section Identification** TOP SECTION Tools Needed: **NOTE:** This provides an alternative method for identifying your door LOCK SECTION sections/stacking position. WARNING LABEL Hinges are always pre-attached at the top of each section (except top section) and the hinges are stamped for identification, #1, #2, and #3. See view below. The stamp identifies the stacking **BOTTOM SECTION** sequence of the section. The sequence is always determined by #1 being the BOTTOM BRACKET ASTRAGAL bottom section to #3 being the highest WARNING LABELS lock/intermediate section. See views to the right. If the stamp on the end hinge 3 SECTION 7'0" HIGH SHOWN ABOVE is illegible, refer to the section side view illustration to the right. The section side view illustration shows TOP SECTION the end hinge profile of all the sections. and can also be used in conjunction with identifying each sections. WARNING LABEL The **BOTTOM SECTION** can be identified by #1 end hinges, the factory INTERMEDIATE SECTION attached bottom astragal, and by the bottom bracket warning labels on each end stile. The LOCK SECTION can be identified by #2 end hinge. LOCK SECTION **NOTE:** On 3 section high doors, the LOCK SECTION can be identified by #3 end hinge and the section will have BOTTOM BRACKET a warning label attached to either the WARNING LABELS right or left hand end stile. **ASTRAGAL BOTTOM SECTION** The INTERMEDIATE SECTION can be **4 SECTION 8'0" HIGH SHOWN ABOVE** identified by #3 end hinges. The section will have a warning label attached to 1 3/8" 1 1/8" 7/8" either the right or left hand end stile. The TOP SECTION can be identified by no pre-installed hinges on the section and the warning label attached in the #3'FND #1<sup>'</sup>END #2<sup>END</sup> center of the section. HINGE HINGE HINGE TOP воттом INT. LOCK **BOTTOM BRACKET** -ASTRAGAL TYPICAL HINGE STAMPING LOCATION

**SECTION SIDE VIEW SHOWN ABOVE** 

STEP LADDER

### **Tools Required** 1/8". 3/16" DRILL BITS RATCHET WRENCH PLIERS/WIRE CUTTERS TAPE MEASURE **GLOVES** PHILLIPS HEAD SCREWDRIVER FLAT TIP SCREWDRIVER **PENCIL NEEDLE NOSE PLIERS** 3/8", 7/16", 1/2", 9/16" 7/16", 1/2", 9/16" 7/16" SOCKET DRIVER SAFETY GLASSES **WRENCHES**

#### Removing An Old Door

VICE GRIPS

**SOCKETS** 

**HAMMER** 

POWER DRILL

IF YOUR COUNTERBALANCE SYSTEM IS OTHER THAN THOSE MENTIONED IN SECTIONS P1, P2 AND P3, D0 NOT ATTEMPT TO WORK ON IT. BUT HAVE A QUALIFIED DOOR AGENCY PERFORM THE WORK. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

VICE CLAMPS

(2) SAW HORSES

DISCONNECT AND REMOVE ANY ELECTRIC OPENER PRIOR TO REMOVAL OF COUNTERBALANCE SYSTEMS TO PREVENT UNINTENDED DOOR OPERATION. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING IT'S ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

IF YOU HAVE BACK PROBLEMS DO NOT ATTEMPT THIS, OR SEVERE INJURY COULD RESULT

REMOVING AN EXISTING DOOR CAN BE DANGEROUS. FOLLOW INSTRUCTIONS ON PAGES 6-10 "REMOVING AN OLD DOOR/PREPARING THE OPENING" CAREFULLY, OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

If you have an existing door, follow the instructions to identify which counterbalance removal is necessary. The process of removing an existing door begins by identifying it's counterbalance system. If you are not removing an existing door, proceed to PREPARING THE OPENING on page 10. Generally, you will find three (3) types of counterbalance systems: Torsion spring counterbalance systems, Wayne-Dalton® exclusive TorqueMaster® and Extension Spring counterbalance systems.

For more technical information regarding the opening preparation, installation and use of your garage door and opener, you can go to www.dasma.com and click on Publications and then Technical Data Sheets Number 156, 161 and 164.

# **P**1

Tools Needed:

Approved Winding Bars

3/8" Wrench

Vice Clamp

Recommended tools from page 5

# Torsion Spring Removal For Standard Lift

#### **⚠** WARNING

FAILURE TO USE APPROVED WINDING BARS CAN CAUSE SPRING ENERGY TO BE RELEASED SUDDENLY, RESULTING IN SEVERE OR FATAL INJURY.

#### **△ WARNING**

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING IT'S ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

Do not release the torsion spring tension unless you are qualified and experienced door technician. Instead have a professional door agency release the tension.

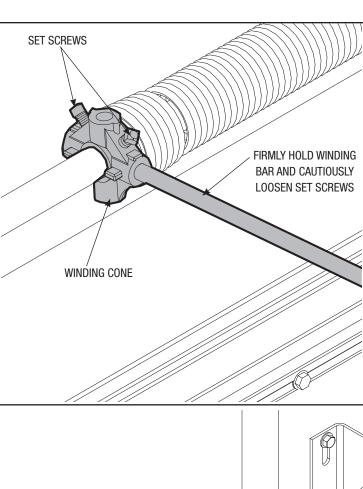
Step 1: Close the door and place vice clamps on the back legs of both vertical tracks, above the third roller to prevent the door from lifting as you unwind the springs. Use only approved winding bars available from your dealer. Do not use undersized steel rods, screw drivers or anything else to unwind the springs. Position the ladder just off to the side of the winding cone. The winding cone should be easy to reach without putting your body directly in front of it.

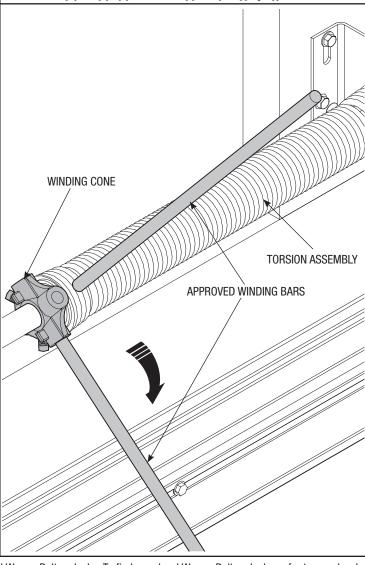
Step 2: Insert a winding bar into one of the holes in the winding cone. Exert upward pressure. Using caution, loosen the two (2) set screws in the winding cone. Be prepared to support the full torsional force of the spring when the set screws are loosened.

Step 3: Once set screws are loose, slowly and carefully lower the winding rod until it contacts the door. Insert other winding bar into the upper hole. Push up and remove lower bar. Carefully lower upper winding bar, 1/4 turns at a time until it contacts the door. Repeat process until all tension is relieved. If your door is equipped with two (2) torsion springs, follow the same procedure to relieve tension on the second spring.

**Step 4:** Remove vice clamps from tracks, unbolt torsion shaft assembly and remove from work area.

**NOTE:** Continue with "P4" on page 9 after completing this step.





# **P2**

#### **TorqueMaster® Spring Removal**

Tools Needed:

Recommended tools from page 5 A TorqueMaster® spring system can be identified by the end brackets. For single spring applications, the right hand end bracket will always have a drive gear, counter gear, counter cover, and a winding bolt head. The left hand end bracket will have no gears, counter cover, or winding bolt head. The hole for the winding bolt head will be plugged.

For double springs, both the right hand and left hand end brackets will always have a drive gear, counter gear, counter cover and a winding bolt head.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

Step 1: If you have a black counter cover: Place a mark on the drive gear tooth and an adjacent mark on the right hand end bracket (Fig. 1). Loosen the lock nut 1/4 turn using a 7/16" wrench and continue with step 2.

If you have a gray counter cover: Loosen the lock nut 1/4 turn using a 7/16" wrench and continue with step 2.

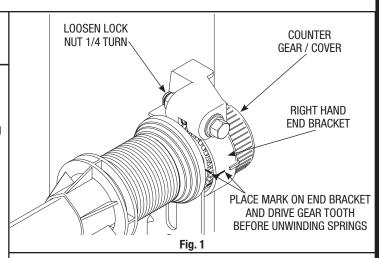
Step 2: Using an electric drill (High torque / gear reduced to 1300 rpm preferred) with a 7/16" hex head driver, unwind the right hand winding bolt head counterclockwise (Fig. 2) and count the number of turns the mark on the drive gear passes the adjacent mark on the end bracket. Referencing the chart below, by door height, stop unwinding the spring once the counted turns have reached the listed number of turns.

- 6'-0" Door Height = 14 turns
- 6'-3" Door Height = 14 1/2 turns
- 6'-5" Door Height = 15 turns
- 6'-6" Door Height = 15 turns
- 6'-8" Door Height = 15 1/2 turns
- 6'-9" Door Height = 15 1/2 turns
- 7'-0" Door Height = 16 turns
- 7'-3" Door Height = 16 1/2 turns
- 7'-6" Door Height = 17 turns
- 7'-9" Door Height =  $17 \frac{1}{2}$  turns
- 8'-0" Door Height = 18 turns

**CAUTION:** DO NOT USE IMPACT GUN TO UNWIND SPRINGS.

IMPORTANT: DO NOT REFERENCE THE COUNTER COVER WHEN COUNTING THE NUMBER OF TURNS BEING UNWOUND ON THE SPRING, BUT FOLLOW THE INSTRUCTIONS ABOVE.

Step 3: Verify that spring tension has been released by pulling the counterbalance cable on the right hand cable drum away from the header (Fig. 3). If spring tension has been released, the cable will be loose. In addition, the TorqueMaster® Spring Tube



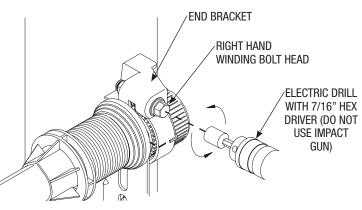
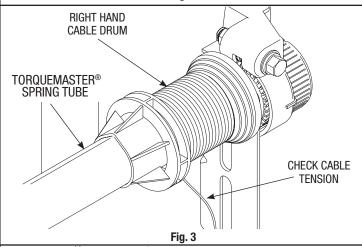
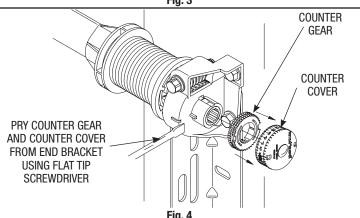


Fig. 2





# TorqueMaster® Spring Removal Continued...

Tools Needed:

Recommended tools from page 5 should be free to rotate in either direction. If the counterbalance cable is still taut and the TorqueMaster® Spring Tube is difficult to rotate, that is an indication that spring tension still exists on the left hand spring. Repeat Steps 1 and 2 for releasing spring tension on the left hand side.

**Step 4:** Using a flat tip screwdriver, pry the counter gear and counter cover from the right hand end bracket (Fig. 4 on previous page). Discard the counter gear and counter cover. On double spring applications, repeat for left hand side.

**Step 5:** Remove the upper 5/16" x 1-5/8" lag screw from the right hand end bracket (Fig. 5). Attach locking pliers to the upper portion of the end bracket and hold the housing steady while removing the lower 5/16" x 1-5/8" lag screw and #10 x 1/2" phillips head screw from the end bracket (Fig. 6).

**Step 6:** Holding the right hand end bracket steady with locking pliers, carefully pry the end bracket and drive gear off the winding shaft using a flat tip screwdriver (Fig. 7).

**CAUTION:** THE WINDING SHAFT MAY ROTATE WHEN REMOVING THE END BRACKET AND DRIVE GEAR.

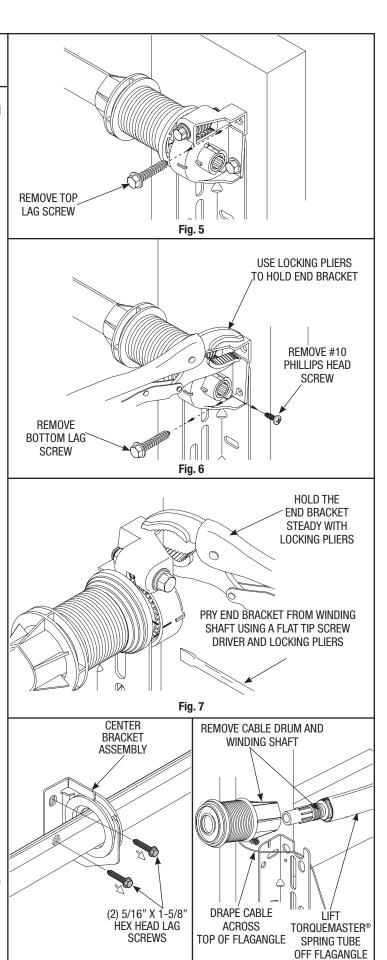
**Step 7:** Repeat Step 4 for the left hand side. Holding the left hand end bracket steady with locking pliers, carefully pry the end bracket off the winding shaft using a flat tip screwdriver (Fig. 7).

**Step 8:** Remove the two (2) lag bolts attaching the center bracket assembly to the header board (Fig. 8).

Step 9: Lift the right hand side of the TorqueMaster® Spring Tube and slide the cable drum off. Realign the groove in the winding shaft with the radial notch in the flagangle and drape the counterbalance cable with drum over the flagangle. Lift the left hand side of the TorqueMaster® Spring Tube and slide the cable drum and winding shaft off (Fig. 9). Drape the counterbalance cable with drum over the flagangle. Lift the TorqueMaster® spring assembly off the flagangles and out of the doorway. Unhook the counterbalance cables from the bottom brackets and remove all parts from the work area.

**NOTE:** The cable drums may be difficult to remove. If so, twist the cable drum to aid in removal.

**NOTE:** Continue with "P4" on page 9 after completing this step.



# **P**3

#### **Extension Spring Removal**

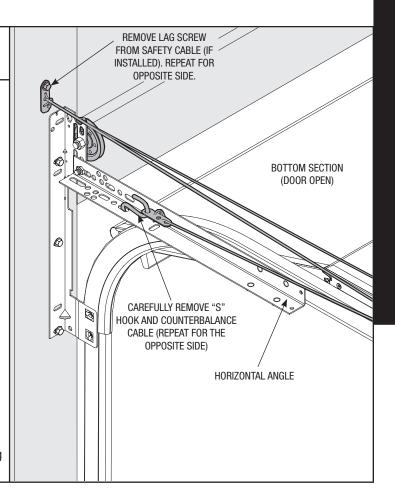
Tools Needed:

Recommended tools from page 5 Step 1: Raise the door to the fully open position and place vice clamps to the back legs of both vertical tracks, below the bottom rollers to prevent the door from falling. By opening the door you release most of the spring tension. Carefully unfasten the S-hook from the horizontal angle. Remove cable, sheave and extension spring. Repeat for the other side. If safety cables are running through the extension springs, remove them also. Remove parts from work area.

**Step 2:** Holding door in the open position, remove the vice clamps, be prepared to support the entire weight of the door. Garage doors can weigh 200-400 pounds.

With assistance, carefully lower the door, by grasping the door firmly by it's lift handles. Do not place fingers or hands near joints, between sections, or between bottom of door and floor. Otherwise, severe injury could result.

**NOTE:** Continue with "P4" after completing this step.



# **P4**

#### Removing the Old Door

Tools Needed:

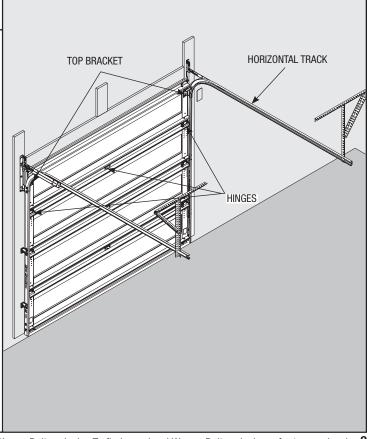
Recommended tools from page 5 Having removed the counterbalance system, the door can now be disassembled.

Start by first removing the top row of hinges.

With assistance, hold the top section to keep it from falling and remove the top brackets. With assistance, lift the top section out of the opening and remove it from the work area. Repeat for all remaining sections.

After door is disassembled, unbolt both track assemblies from the jambs and remove all material from the work area. You can neatly dispose of the old door by placing it in the carton of your new door.

Clean up area and complete "Preparing the Opening" "P5" on page 10 before installing the new door.



# **P**5

#### **Preparing the Opening**

Tools Needed: Recommended tools from page 5 If you just removed your existing door or you are installing a new door, complete all steps in PREPARING THE OPENING. To ensure secure mounting of track brackets, side and center brackets, or steel angles to new or retro-fit construction, it is recommended to follow the procedures outlined in DASMA Technical Data Sheets #156, #161 and #164 at www.dasma.com.

The inside perimeter of your garage door opening should be framed with wood jamb and header material. The jambs and header must be securely fastened to sound framing members. It is recommended that 2" x 6" lumber be used. The jambs must be plumb and the header level. The jambs should extend a minimum of 12" (305 mm) above the top of the opening for TorqueMaster counterbalance systems. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2" (89 mm).

**IMPORTANT:** CLOSELY INSPECT JAMBS, HEADER AND MOUNTING SURFACE. ANY WOOD FOUND NOT TO BE SOUND, MUST BE REPLACED.

For TorqueMaster counterbalance systems, a suitable mounting surface (2"  $\times$  4") must be firmly attached to the wall, above the header at the center of the opening.

**NOTE:** Drill a 3/16" pilot hole in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

#### Weather Seal (May Not Be Included):

Cut the weather seal (if necessary) to fit header and jambs. For quick install track: Align the header seal with the inside edge of the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and flush with the inside edge of the jamb. Temporarily secure the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

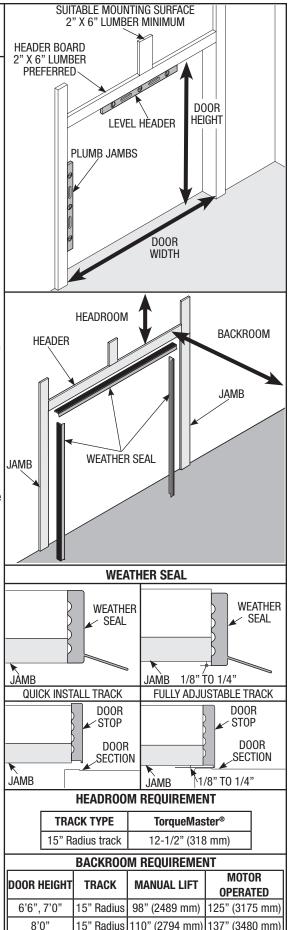
For fully adjustable track: Align the header seal 1/8" to 1/4" inside the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and 1/8" to 1/4" inside the jamb. Temporarily secure the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

**NOTE:** Do not permanently attach weather seal to the jamb at this time.

**HEADROOM REQUIREMENT:** Headroom is defined as the space needed above the top of the door for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2" (64 mm) of additional headroom is required.

**NOTE:** 6" LHR Conversion Kit is available for 12" Radius only. Contact your local Wayne-Dalton dealer.

**BACKROOM REQUIREMENT:** Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.

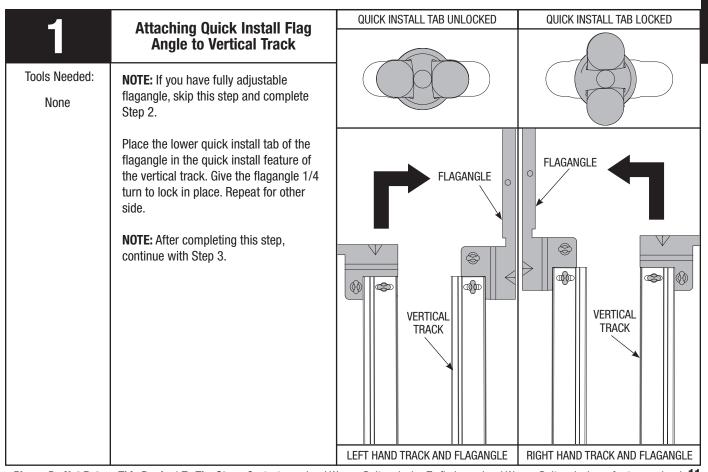


#### Installation

**IMPORTANT:** READ INSTRUCTIONS TITLED "P4" "REMOVING THE OLD DOOR" ON PAGE 9 AND "P5" "PREPARING THE OPENING" ON PAGE 10 BEFORE ATTEMPTING DOOR INSTALLATION.

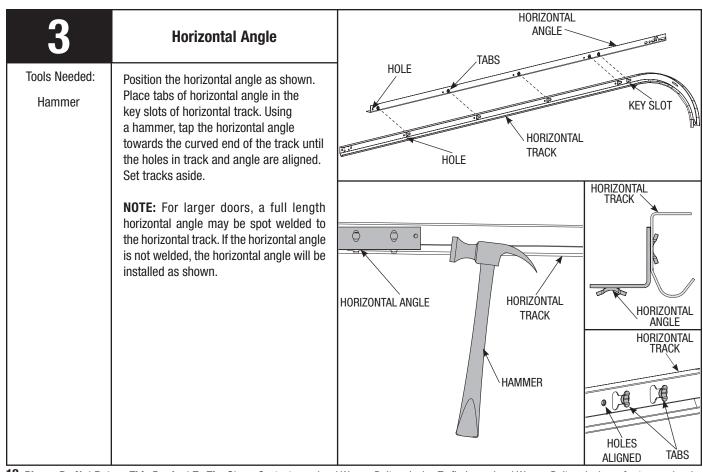
**IMPORTANT:** STAINLESS STEEL OR PT2000 COATED LAG SCREWS <u>MUST</u> BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, OPERATOR MOUNTING/SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL LAG SCREWS ARE <u>NOT</u> NECESSARY WHEN INSTALLING PRODUCTS ON UN-TREATED LUMBER.

**NOTE:** It is recommended that 5/16" x 1-5/8" lag screws be pilot drilled using a 3/16" drill bit, and 1/4" x 2" lag screws and 1/4" x 1-1/2" lag screws be pilot drilled using a 1/8" drill bit, prior to fastening.



Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local 11 yellow pages business listings or go to the Find a Dealer section online at www.Wayne-Dalton.com

#### FULLY ADJUSTABLE FLAGANGLE **Attaching Fully Adjustable** Flagangle to Vertical Track Tools Needed: **NOTE:** If quick install flagangle was installed in Step 1, skip this step and None continue with Step 3. If not, complete 1/4" - 20 this step. FLANGE HEX NUTS Hand tighten the flagangle to the vertical track using (2) 1/4" - 20 x 9/16" large head ribbed track bolts (or stud plate if STUD PLATE included) and (2) 1/4" - 20 flange hex (IF INCLUDED) nuts. Repeat for other side. Secure the flange nuts after flagangle spacing is complete (Step 12). 1/4" - 20 X 9/16" LARGE HEAD RIBBED VERTICAL TRACK TRACK BOLTS



12 Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages business listings or go to the Find a Dealer section online at www.Wayne-Dalton.com

#### Installing Fully Adjustable Jamb Brackets

Tools Needed:

None

**NOTE:** If you have quick install jamb brackets, skip this step and complete Step 5.

The bottom jamb bracket is always the shortest bracket included with your door. If three jamb brackets are included with you door, the second bracket up is the middle bracket in height. The top jamb bracket is the tallest bracket included.

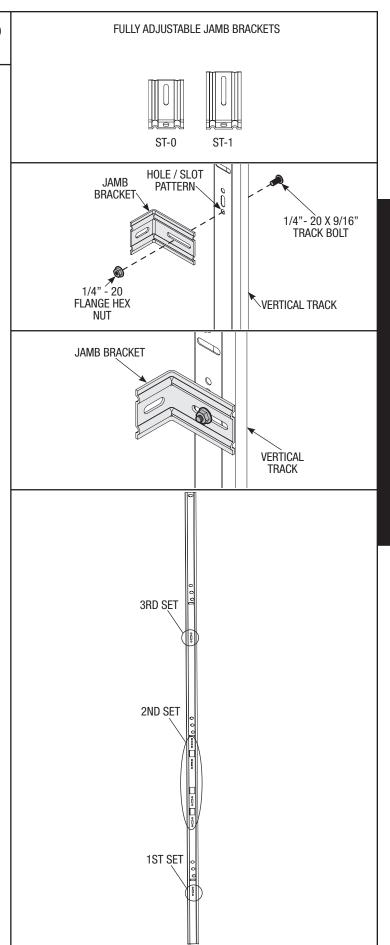
To attach the bottom jamb bracket, locate the lower hole/slot pattern of the vertical track. Align the slot in the jamb bracket with the lower hole of the hole/slot pattern in the vertical track. Secure jamb bracket, using (1) 1/4"-20 x 9/16" track bolt and 1/4"-20 flange hex nut.

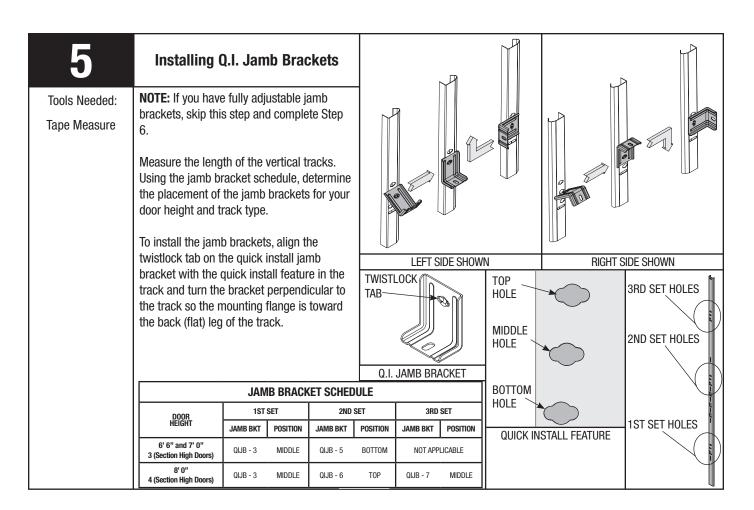
Place the center jamb bracket over the hole/slot pattern that is centered between the bottom jamb bracket and flagangle. Align the slot in the jamb bracket with the lower hole of the hole/slot pattern. Loosely fasten the bracket onto the track with (1) 1/4"-20 x 9/16" track bolt and 1/4-20 flange hex nut.

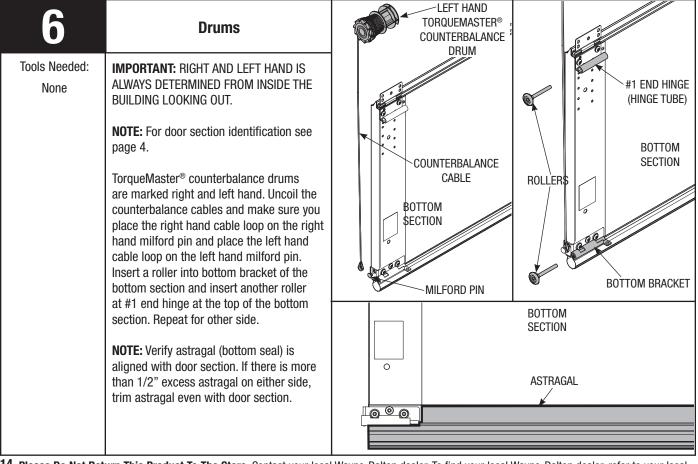
Repeat if a third jamb bracket is provided, equally spacing the distance between the two center jamb brackets and the bottom jamb bracket and flagangle.

**NOTE:** While the bottom jamb bracket is the shortest in length that is included with your door. It does not necessarily mean it is the "short" (ST-0) jamb bracket.

**NOTE:** After completing this step, continue with Step 6.





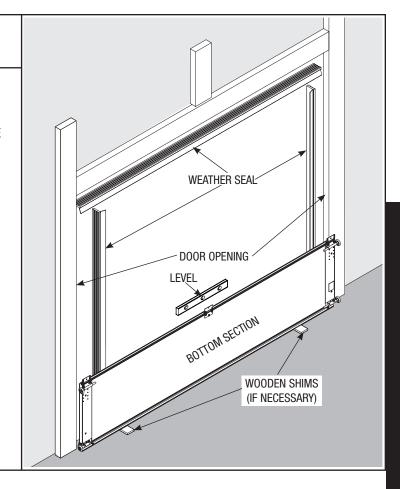


#### **Bottom Section**

#### Tools Needed: Level

Before installing the bottom section, the weather seal (may not be included) must be temporarily installed on both jambs and header (see PREPARING THE OPENING on page 10).

Center the bottom section in the door opening. Level section using wooden shims (if necessary) under the bottom section.



# 8

#### Tools Needed: 3/16" Drill Bit Power Drill 7/16" Socket Driver Tape Measure

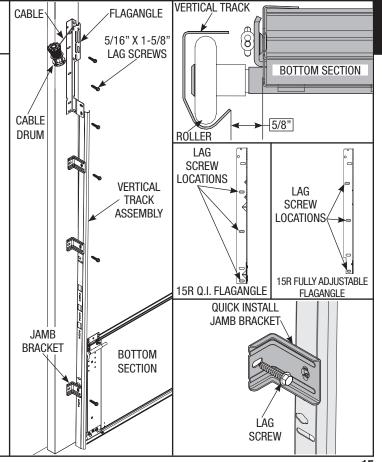
Level

#### **Vertical Track**

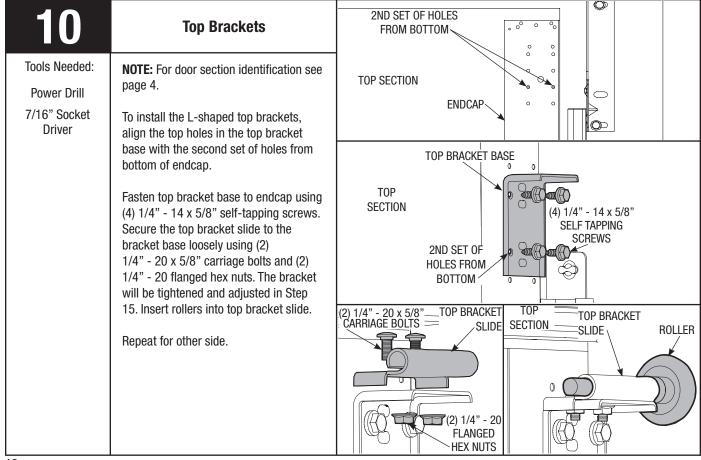
IMPORTANT: THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT. THE VERTICAL TRACK ON THE SHIMMED SIDE, MUST BE RAISED THE HEIGHT OF THE SHIM.

Position the left hand vertical track assembly over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. Drill 3/16" pilot holes for the lag screws. Loosely fasten jamb brackets and flagangle to the jamb using 5/16" x 1-5/8" lag screws. Tighten lag screw securing bottom jamb bracket to jamb, to maintain 5/8" spacing. Hang cable drum over flagangle.

Repeat for the right hand side.



#### (2) 1/4" - 14 X 5/8" SELF-TAPPING SCREWS **Stacking Sections NOTE:** For door section identification see Tools Needed: ALIGNMENT STICKERS page 4. RIGHT END HINGE Power Drill **NOTE:** Make sure hinge leafs are flipped LOCK SECTION (2) 1/4" - 14 X 5/8" down, when stacking another section on top. 7/16" Socket SELF-TAPPING SCREWS Place rollers in hinge tubes of the second 0 Driver section (lock section). With assistance, lift second section and guide rollers into the vertical tracks. Align vertical marks in the upper alignment sticker, with the lower LEFT END HINGE alignment sticker on right hand side on the (3) 1/4" - 14 X 5/8" back of door. Keep sections aligned and SELF-TAPPING SCREWS fasten hinges to connect the sections using 1/4" - 14 x 5/8" self-tapping screws. Repeat for other section(s) except top section. **IMPORTANT: WHEN SECURING THE END** INTERMEDIATE HINGE HINGES TO THE SECTIONS WITH 1/4" - 14 X 5/8" SELF-TAPPING SCREWS. ENSURE THEY ARE ATTACHED AS SHOWN IN THE ILLUSTRATIONS ABOVE. **IMPORTANT: PUSH & HOLD THE HINGE** LEAFS AGAINST SECTION WHILE SECURING WITH 1/4" - 14 X 5/8" SELF-TAPPING (2) 1/4" - 14 X 5/8" (3) 1/4" - 14 X 5/8" SELF-TAPPING SCREWS. END HINGES HAVE (2) SCREWS SELF-TAPPING SCREWS **SCREWS** AND INTERMEDIATE HINGES HAVE (3) END HINGES (LEFT HAND SHOWN, RIGHT SCREWS. INTERMEDIATE HINGES HINGE SYMMETRICALLY OPPOSITE)



Tools Needed: Power Drill 7/16" Socket Driver

#### **Operator Bracket**

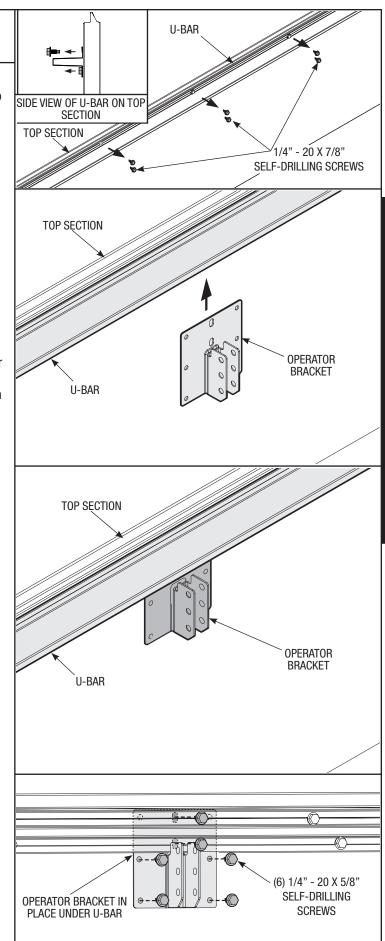
**NOTE:** If installing a trolley type operator, complete this step. If not, skip this step and continue with Step 12.

IMPORTANT: WHEN CONNECTING A TROLLEY TYPE GARAGE DOOR OPENER TO THIS DOOR, A WAYNE-DALTON OPENER / TROLLEY BRACKET MUST BE SECURELY ATTACHED TO THE TOP SECTION OF THE DOOR, ALONG WITH ANY U-BARS PROVIDED WITH THE DOOR. THE INSTALLATION OF THE OPENER MUST BE ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND FORCE SETTINGS MUST BE ADJUSTED PROPERLY.

Remove, but retain (4 - 6) 1/4" - 20 x 7/8" self-drilling screws from the center of the u-bar, allowing the operator bracket to slide between the top section and the u-bar.

**NOTE:** For retro fit applications, the operator bracket must be aligned with an existing operator

Locate the center of the top section and slide operator bracket under u-bar till the operator bracket is seated against the u-bar flange. Attach the operator bracket using (6) 1/4" - 20 x 5/8" self-drilling screws (as shown). Finish re-attaching the u-bar using the self-tapping screws removed previously.



#### **Top Section**

Tools Needed: Hammer Place the top section in the opening and vertically align with lower sections. Align vertical marks in the upper alignment sticker, with the lower alignment sticker on right hand side on the back of door. Temporarily secure the top section by driving a nail in the header near the center of the door and bending it over the top section.

Now, flip up hinge leafs, hold them tight against section and fasten center hinges first and end hinges last. (Refer to Step 9).

When installing a door with a TorqueMaster® counterbalance system, vertical track alignment is critical. Position flagangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door. Flagangles must be parallel to the door sections. Now, complete the vertical track installation by securing the center jamb bracket and tightening the other lag screws.

Repeat for other side.

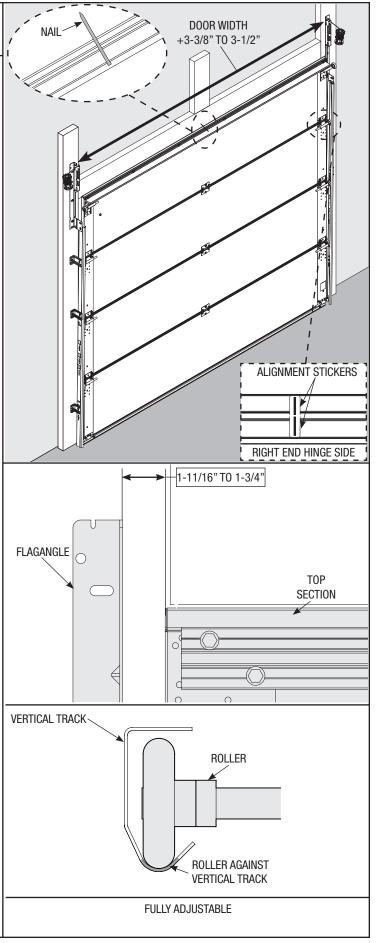
IMPORTANT: THE DIMENSION BETWEEN THE FLAGANGLES MUST BE DOOR-WIDTH PLUS 3-3/8" (86 MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.

#### For quick install track:

Complete the vertical track installation by securing the center jamb bracket(s) and tightening the other lag screws. Repeat for opposite side.

#### For fully adjustable track:

Complete the vertical track installation by securing the center jamb bracket(s) and tightening the other lag screws. Push the vertical track against the rollers so that the rollers are touching the deepest part of the curved side of the track (see illustration); tighten all the track bolts and nuts. Repeat for opposite side.



Tools Needed: 9/16" Socket Ratchet Wrench 9/16" Wrench Level

# Attaching Horizontal Track to Quick Install Flagangle

**NOTE:** If you have fully adjustable flagangle, skip this step and complete Step 14.

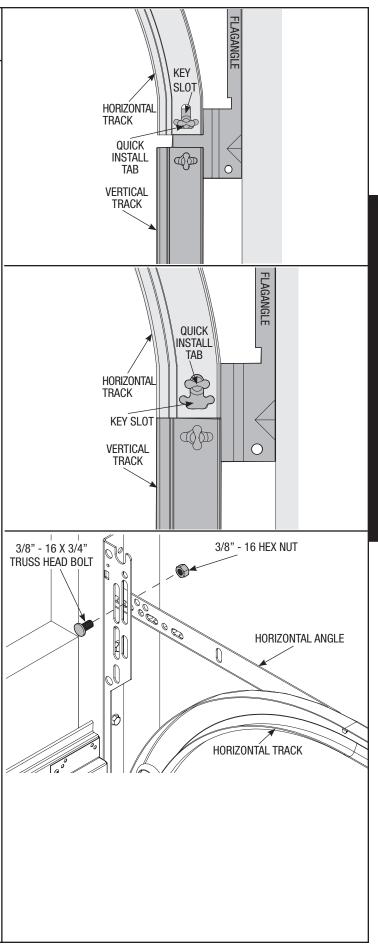
To install horizontal track, place the curved end over the top roller. Align key slot of the horizontal track with the quick install tab of the flagangle. Push curved portion of horizontal track down to lock in place. Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 12.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

#### **△ WARNING**

DO NOT RAISE DOOR UNTIL
HORIZONTAL TRACKS ARE SECURED
AT REAR, AS OUTLINED IN STEP 26, OR
DOOR COULD FALL FROM OVERHEAD
POSITION CAUSING SEVERE OR FATAL
INJURY.

**NOTE:** If an idrive® opener will be installed, position horizontal tracks slightly above level.



# Attaching Horizontal Track to Adjustable Flagangle

Tools Needed:

7/16" Socket 9/16" Socket Ratchet Wrench 9/16" Wrench

Level Flat Tip

Screwdriver

**NOTE:** If quick install flagangles were installed in Step 13, skip this step and continue with Step 15. If not, complete this step.

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the vertical track. Hand tighten the horizontal track to the flagangle with (1) stud plate and (2) 1/4" - 20 flange hex nuts.

#### **△ WARNING**

DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 26, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

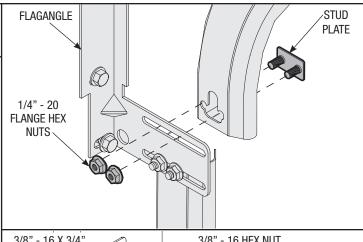
Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 12.

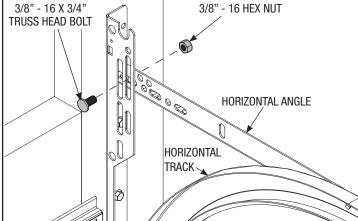
IMPORTANT: FAILURE TO REMOVE NAIL

REFORE ATTEMPTING TO RAISE DOOR

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

**NOTE:** If an idrive® opener will be installed, position horizontal tracks slightly above level.





# 15

#### **Adjusting Top Brackets**

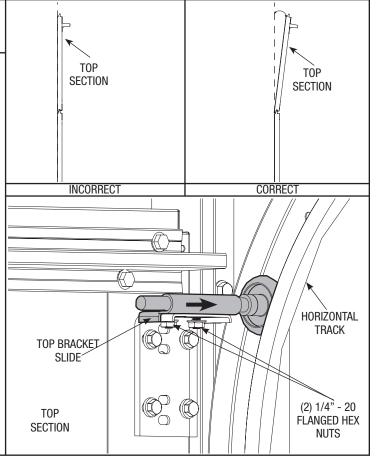
Tools Needed:

7/16" Wrench

With horizontal tracks installed, you can now adjust the top brackets.

Vertically align the top section of the door with the lower sections. Once aligned, position the top bracket slide, out against the horizontal track.

Maintaining the slide's position, tighten the (2) 1/4" - 20 flange hex nuts to secure the top roller slide to the top bracket base.



# Tools Needed: None TorqueMaster® Spring Tube TorqueMaster® springs come lubricated and pre-assembled inside the TorqueMaster® spring tube. To install, lay the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left. TorqueMaster® Spring Tube TorqueMaster® spring tube. To install, lay the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.

# **17**

#### **Center Bracket Bushing**

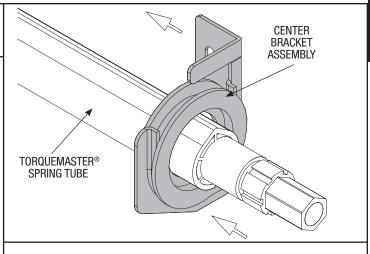
Tools Needed:

None

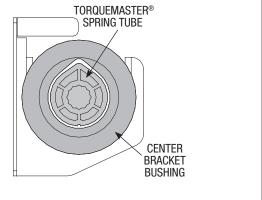
**NOTE:** If you are installing the *i*drive® opener with your garage door, skip this step and go to your *i*drive® Installation Instruction/Owner's Manual. After completing Steps 1 thru 10 in your *i*drive® Installation Instruction/Owner's Manual, continue with Step 22 of the door Installation Instruction/Owner's Manual.

**NOTE:** If you are not installing an *i*drive® opener with your garage door, you must install the center bracket bushing assembly. Continue to follow these instructions for non-*i*drive® operated garage doors.

Being cam shaped the center bracket bushing only fits one way. Slide the center bracket assembly towards the center of the TorqueMaster® spring tube, from the right side as shown.



LABELED END

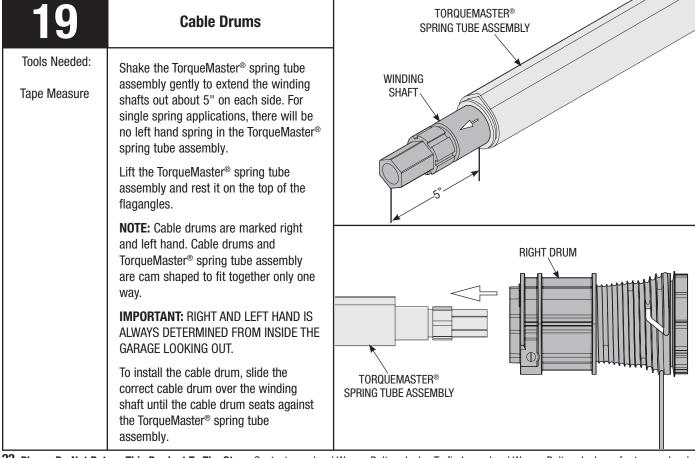


#### RIGHT HAND DRUM WRAP **Drum Wraps** Tools Needed: **NOTE:** Drum wraps must be installed prior to installing the TorqueMaster® None LEFT HAND DRUM WRAP plus end bracket. Drum wrap installation after the end bracket is installed, is not possible without un-installing the end bracket and it's components. **IMPORTANT: RIGHT AND LEFT HAND IS** ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT. Drum wraps are identified as right and left. Slide the left hand drum wrap over LEFT HAND DRUM WRAP the left side of the TorqueMaster® spring tube assembly with the tabs facing left. TORQUEMASTER® Continue sliding the left hand drum wrap SPRING TUBE ASSEMBLY towards the center of the TorqueMaster® spring tube assembly. Slide the right hand drum wrap over the right side of the TorqueMaster® spring tube assembly with the tabs facing right. Continue

sliding the right hand drum wrap towards the center of the TorqueMaster®

spring tube assembly.

TÁBS



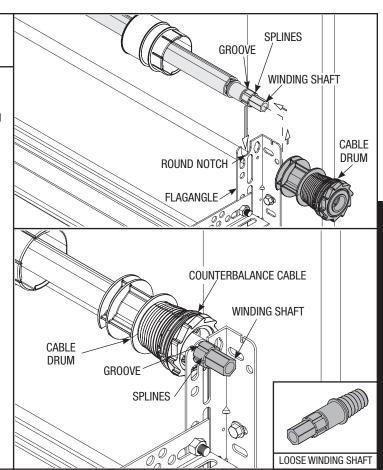
#### Cable Drums Continued...

The winding shaft must extend past the cable drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle.

**For double spring applications:** Repeat for opposite side.

For single spring applications: Insert the loose winding shaft into the left hand cable drum prior to sliding the cable drum over the TorqueMaster® spring tube assembly.

**NOTE:** On single spring applications, take care in handling the loose winding shaft (left side) so that it does not slide back into the TorqueMaster® spring tube assembly.



# **20**

Tools Needed:

Power Drill

7/16" Socket Driver

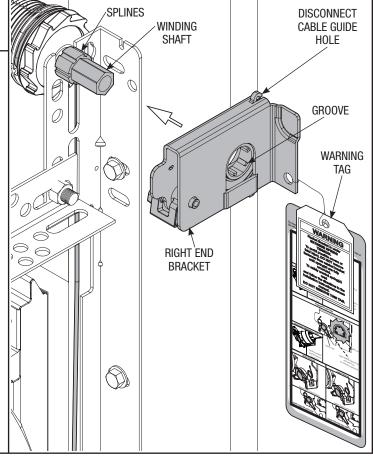
9/16" Wrench

#### **End Brackets**

**IMPORTANT:** WARNING TAGS MUST BE SECURELY ATTACHED TO BOTH END BRACKETS.

End brackets are right and left hand. You can identify the right hand end bracket by the disconnect cable guide hole in the top of the bracket.

Beginning with either side, slide the end bracket onto the winding shaft so that the grooves in the ratchet wheel fit onto the winding shaft splines.

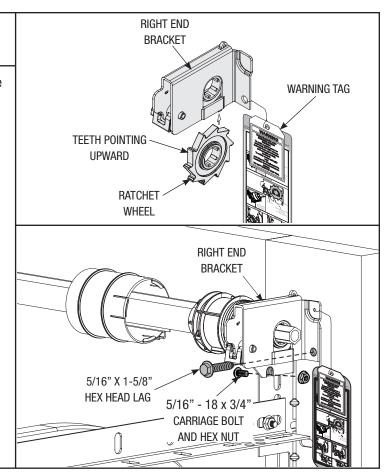


#### **End Brackets Continued...**

First secure end bracket to the flagangle using (1) 5/16" - 18 x 3/4" carriage bolt and (1) 5/16" - 18 hex nut. Now, secure end bracket to the jamb using (1) 5/16" x 1-5/8" hex head lag screw. Repeat for left hand end bracket.

**NOTE:** Ensure the 5/16" - 18 x 3/4" carriage bolt is going through the flagangle first, and the 5/16" - 18 hex nut is on the outside of the end bracket.

**IMPORTANT: IF RATCHET GEAR SLIPS** OUT OF END BRACKET. ENSURE THE TEETH ON RATCHET WHEEL ARE POINTING UPWARD IN A CLOCKWISE POSITION WHEN SLIDING IT BACK INSIDE THE END BRACKET.



#### **Securing Center Bracket Assembly**

Power Drill 3/16" Drill Bit

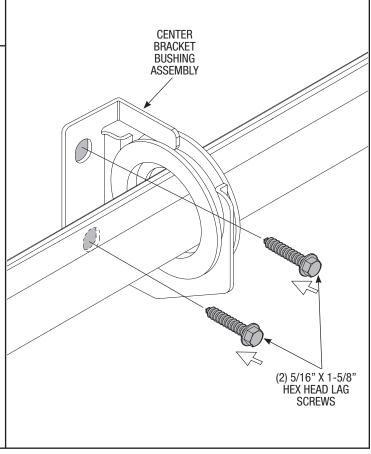
Tools Needed:

7/16" Socket Driver

**NOTE:** If you are installing the *i*drive® opener with your garage door, skip this

**NOTE:** If you are not installing the idrive® opener on your garage door, you must install the center bracket bushing assembly. Follow these instructions for non-idrive® operated garage doors.

To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 3/16" pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 5/16" X 1-5/8" lag screws.



#### Securing Door for Spring Winding

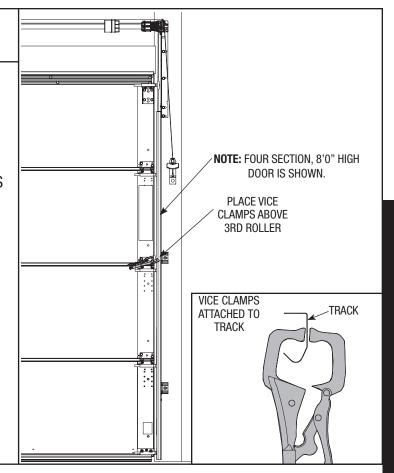
Tools Needed:

Vice Clamps

Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding counterbalance springs.

#### **△ WARNING**

FAILURE TO PLACE VICE CLAMPS ONTO VERTICAL TRACK CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.



# 23

Tools Needed:

Pliers/Wire Cutters

Flat Tip Screwdriver

#### **Cable Adjustment**

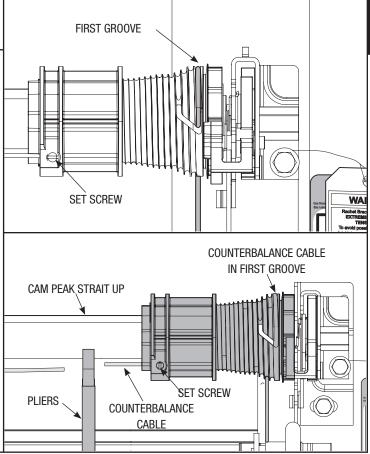
Starting on the right side, adjust the cable drum assembly by rotating the drum until the set screw faces directly away from the header. Loosen the set screw no more than 1/2 turn.

Pull on the end of the cable to remove all cable slack. Check to ensure the cable is aligned and seated in the first groove of the cable drum. Snug the set screw, and then tighten an additional 1-1/2 turns.

Cut off excess cable.

**IMPORTANT:** ENSURE THE CABLE IS ALIGNED AND SEATED IN THE FIRST GROOVE OF THE CABLE DRUM PRIOR TO WINDING SPRINGS.

**NOTE:** Illustrations show the right TorqueMaster® Plus drum, left TorqueMaster® Plus drum is symmetrically opposite.



Tools Needed:

Ratchet

5/8" Socket

3" Extension

Gloves

#### **Winding Springs**

#### **△ WARNING**

IT IS RECOMMENDED THAT LEATHER GLOVES BE WORN WHILE WINDING THE TORQUEMASTER® PLUS SPRINGS. FAILURE TO WEAR GLOVES MAY CAUSE INJURY TO HANDS.

#### **△** WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS.

OTHERWISE THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY. Double check to ensure the counterbalance cable is aligned in the first groove of the cable drum Step 28. Starting with the right hand side, place a mark on winding shaft (or socket) and end bracket.

Turn the pawl knob on the end bracket to the upper position. Using a ratchet wrench with a 5/8" socket (NOTE: A 3" extension is also recommended for added clearance from the horizontal angle.), wind the spring by rotating the winding shaft counter clockwise, while watching the mark on the winding shaft.

IMPORTANT: PAWL KNOB MUST BE IN UPPER POSITION TO ADD/ REMOVE REQUIRED NUMBER OF SPRING TURNS. After 2-3 turns, remove the ratchet wrench and adjust the cable on the left side (Step 28). Ensure the cables are in the first groove and the cable drums, as shown in Step 28.

**NOTE**: Single spring application require no spring winding on the left hand side, but need cable tension adjustments.

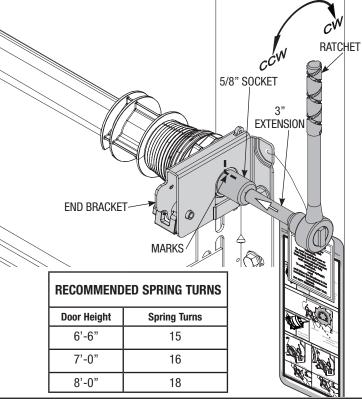
IMPORTANT: COUNTERBALANCE CABLE TENSION MUST BE EQUAL ON BOTH SIDES PRIOR TO FULLY WINDING SPRINGS.

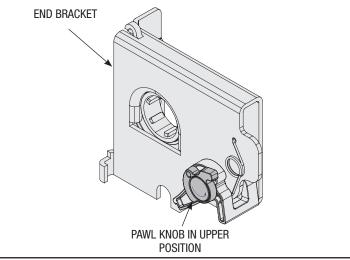
# SEE THE SPRING TURN CHART FOR THE REQUIRED NUMBER OF TURNS:

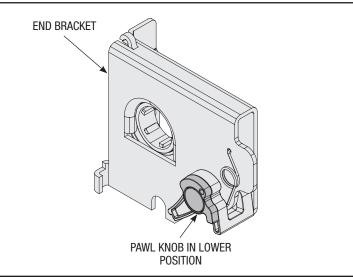
For single spring applications: Return to the right hand and continue winding the spring to the required number of turns for your door. Place pawl knob in lower position.

For double spring applications: Place a mark on the winding shaft and end bracket. Place the ratchet with 5/8"

socket onto the left hand winding shaft end.







#### Winding Springs Continued...

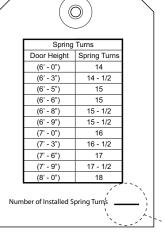
To wind the spring, rotate the winding shaft <u>clockwise</u>, while watching the mark on the winding shaft. Rotate the winding shaft to the required number of turns for your door. Then return to the right hand side and wind the right hand spring to the required number of turns. Place pawl knob in lower position on both sides.

**IMPORTANT:** Mark number of spring turns on TorqueMaster® Plus end bracket warning tag(s).

NOTE: Since total turns to balance door can deviate from SPRING TURN CHART values by ± 1/2 turn, adjustments to the recommended number of turns may be required AFTER rear hangers assembly is completed.

IMPORTANT! HOLD THE DOOR DOWN TO PREVENT IT FROM RISING UNEXPECTEDLY IN THE EVENT THE SPRING WAS OVERWOUND AND CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS. IMPORTANT! ADJUSTMENTS TO THE RECOMMENDED NUMBER OF TURNS MAY BE REQUIRED. IF DOOR RAISES OFF THE FLOOR UNDER SPRING TENSION ALONE, THEN REDUCE SPRING TENSION UNTIL DOOR REST ON THE FLOOR. IF THE DOOR IS HARD TO RAISE OR DRIFTS DOWN ON ITS OWN, THEN ADD SPRING TENSION.

#### BACK OF TORQUEMASTER® PLUS END BRACKET WARNING TAG(S)



LOCATION FOR MARKING NUMBER OF INSTALLED SPRING TURNS

# **25**

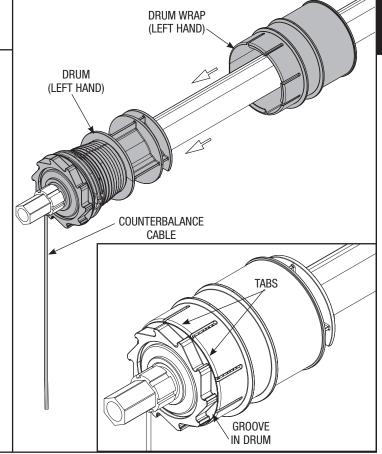
#### Tools Needed:

None

#### **Drum Wrap Installation**

To install drum wraps, position the left hand drum wrap over the left hand drum, align with counterbalance cable; slide groove in drum wrap towards the left until tabs snap over drum in between drum and ratchet gear. Repeat for right hand side.

**IMPORTANT:** RIGHT AND LEFT HAND ARE ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.



Tools Needed:
Ratchet Wrench
1/2" Socket
1/2" Wrench
(2) Vice Clamps
Tape Measure
Level
Hammer

#### **Rear Support**

Raise the door until the top section and half of the next section are in a horizontal position. Do not raise door any further since rear of horizontal track is not yet supported. Do not space the track more than 3/4" from door edge.

#### **⚠ WARNING**

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE OR FATAL INJURY.

#### **⚠** WARNING

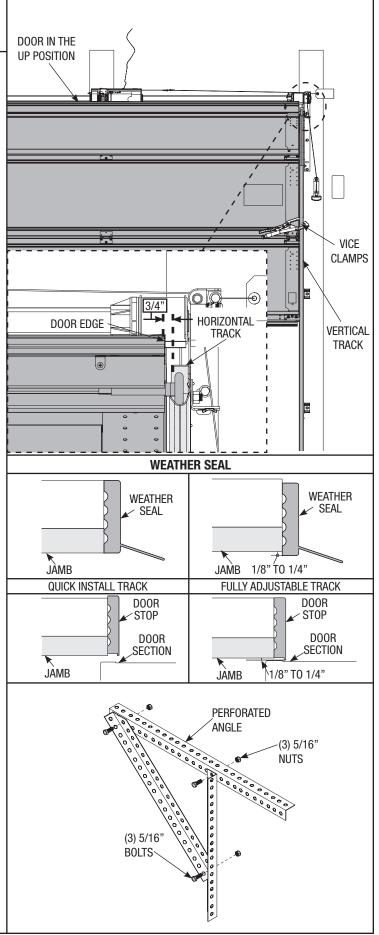
KEEP HORIZONTAL TRACK
PARALLEL AND WITHIN 3/4"
MAXIMUM OF DOOR EDGE,
OTHERWISE DOOR COULD FALL,
RESULTING IN SEVERE OR FATAL
INJURY.

Clamp a pair of vice clamps on the vertical tracks just above the second roller on one side, just below the second roller on the other side. This will prevent the door from raising or lowering while installing the rear support. Fabricate rear support for horizontal tracks, using perforated angle, 5/16" x 1-5/8" hex head lag screws and 5/16" bolts with nuts (may not be supplied). Attach horizontal tracks to the rear supports with 5/16"-18 x 1-1/4" hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel with door.

IMPORTANT: IT IS NOT RECOMMENDED THAT ANY PART OF THE HORIZONTAL TRACK HANGER THAT CANTILEVERS 4" BEYOND A SOUND FRAMING MEMBERS BE USED TO SUPPORT THE WEIGHT OF THE DOOR.

**NOTE:** If perforated angle is installed over drywall, use 5/16" x 2" hex head lag screws.

Adjust weather seal or door stop (if necessary) and now permanently attach the weather seal or door stop to both door jambs and header. (They were temporarily attached to the jambs in PREPARING THE OPENING on page 10.) Avoid pushing weather seal or door stop too tightly against face of door.



#### **Rear Support Continued...**

**NOTE:** If an idrive® opener is installed, position horizontal tracks one hole above level when securing it to rear supports. **NOTE:** Perforated angle must be attached to sound framing members and nails should not be used.

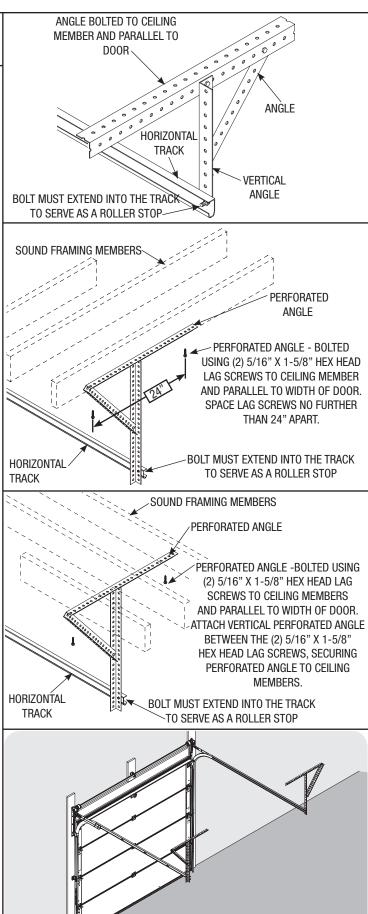
Now, lift door and check it's balance. Adjust, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position to add/remove required number of spring turns (refer to step 29). To adjust springs, only add or remove a maximum of 3/10 of a turn (three teeth of ratchet wheel) at a time. Both sides need to be adjusted equally on double spring doors. Add Spring Tension: The ratchet wheel is made of 10 teeth. To add spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three "clicks"

Remove Spring Tension: To remove spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side and clockwise on the left hand side. It is recommended that a regular 5/8" wrench be used. Place the wrench onto the winding shaft. Pull down on the wrench to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the wrench to be rotated upward by the spring tension. Release the pawl to allow it to engage with the ratchet wheel. **IMPORTANT:** BE PREPARED TO HOLD THE FULL TENSION OF THE SPRING. **IMPORTANT: DO NOT ADD OR REMOVE** 

MORE THAN 1 SPRING TURNS (1 SPRING TURN EQUALS 10 TEETH ON RÀTCHET WHEEL) FROM THE RECOMMENDED NUMBÉR OF TURNS SHOWN ON THE SPRING TURN CHART.

If the door still does not operate easily, lower the door into the closed position, UNWIND SPRING(S) COMPLETELY, and recheck the following items:

- Check the door for level.
   Check the TorqueMaster® tube and flagangles for level and plumb.
- 3.) Check the distance between the flagangles must be door width plus 3-3/8" to 3-1/2".
  4.) Check the counterbalance cables for
- equal tension adjust if necessary.
- Rewind the spring(s).
- 6.) Make sure door isn't rubbing on jambs. After door installation is completed and you have installed an idrive® opener, refer to Steps 15 thru 32 in your idrive® Installation Instruction/Owner's Manual.





Tools Needed:

5/8" Socket

**Ratchet Wrench** 

3" Extension

Vice Clamps (Pair)

3" Extension

#### TorqueMaster® Plus Reset Instructions

#### **△** WARNING

TO AVOID POSSIBLE INJURY, READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO RESET THE TORQUE-MASTER® PLUS SYSTEM. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A QUALIFIED DOOR INSTALLATION COMPANY RESET THE SYSTEM.

#### **△ WARNING**

ALWAYS KEEP MOVING DOOR IN SIGHT AND KEEP PEOPLE AND OBJECTS AWAY UNTIL IT IS COMPLETELY CLOSED. TO PREVENT A SEVERE OR FATAL INJURY, AVOID STANDING IN A OPEN DOOR WAY OR WALKING THROUGH THE DOORWAY WHILE THE DOOR IS MOVING.

#### **⚠ WARNING**

KEEP THE GARAGE DOOR PROPERLY BAL-ANCED. AN IMPROPERLY BALANCED DOOR COULD CAUSE SEVERE OR FATAL INJURY. HAVE A QUALIFIED DOOR INSTALLATION COMPANY MAKE ADJUSTMENTS/REPAIRS TO CABLES, SPRING ASSEMBLIES AND OTHER HARDWARE.

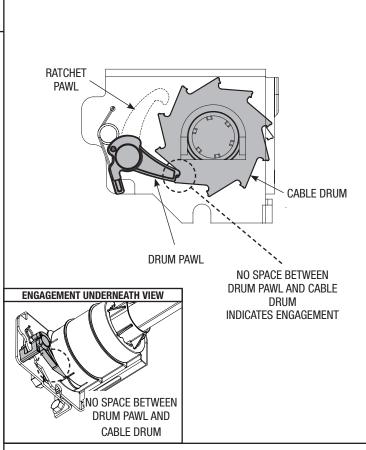
This door is equipped with a Torquemaster® Plus system, which provides a safety feature preventing the door from rapidly descending in case of spring failure or forceful manual operation. Typical signs of an engaged system: Door opens, but will not close; door makes a distinct "clicking" noise upon opening. If the system is engaged, carefully follow the reset instructions below in conjunction with the door's Installation Instructions and Owner's Manual to reset the Torquemaster® Plus system.

Instruction manuals are available for download at www.Wayne-Dalton.com.

#### RESETTING THE ANTI-DROP DEVICE

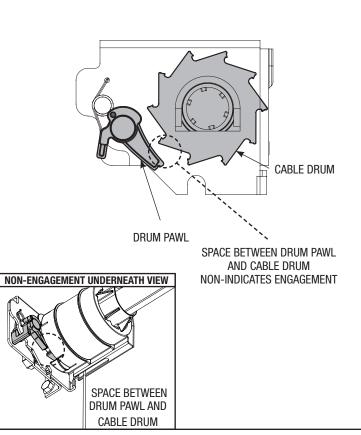
1. First, locate and visually inspect the Torquemaster® Plus end brackets to determine if the system has engaged (see illustration on reverse side). **NOTE:** The Torquemaster® Plus end brackets are located on top of the door on the right and left hand side.

**NOTE:** If the Torquemaster® Plus system has not engaged, do not complete the following steps.



**ENGAGEMENT SIDE VIEW** 

#### NON-ENGAGEMENT SIDE VIEW



# TorqueMaster® Plus Reset Instructions Continued...

If the system is engaged, follow these steps to reset the system:

- 2. Disengage opener (if installed) by pulling or placing emergency disconnect in the manual operated position.
- 3. With the door in the open position, clamp vice grips on both tracks just below the bottom section roller.
- 4. Now is a good time to remove vehicles from garage, and provide clear access to end brackets.
- 5. Flip the ratchet pawl knob on both end brackets to the upper position (see illustration).
- 6. Raise door 2"-3" and then lower door. Repeat process until anti-drop device resets (see disengaged illustrations on reverse side).

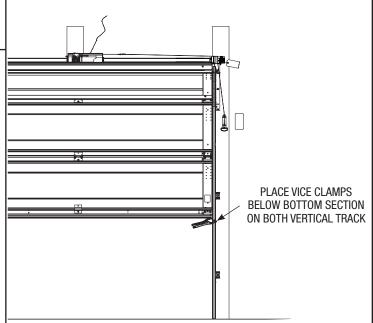
## IMPORTANT: BE PREPARED TO SUPPORT THE TOTAL WEIGHT OF THE DOOR.

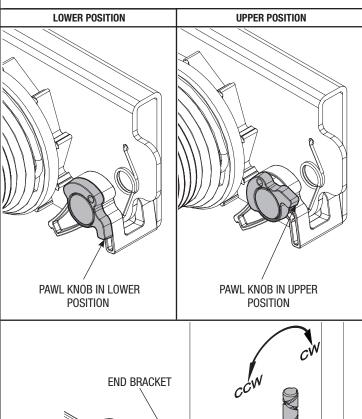
- 7. Cautiously remove the vice clamps from both tracks and with assistance lower the door.
- 8. Check for spring tension. Starting on the right hand side, place a ratchet and 5/8" socket on the Torquemaster® Plus winding shaft (see illustration in instruction manual). Ensure ratchet is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side (if applicable). If tension is present, remove the ratchet and check the left hand side (if applicable). If spring(s) have tension, proceed to Balancing Door Step 1; if no spring tension is present, contact a qualified door installation company to replace the spring(s).

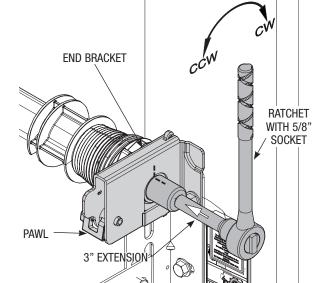
IMPORTANT: HAVE A QUALIFIED DOOR INSTALLATION COMPANY MAKE ADJUSTMENTS/REPAIRS TO CABLES, SPRING ASSEMBLIES AND OTHER HARDWARE.

#### **BALANCING DOOR**

1. Lift door and check its balance. Adjust spring(s), if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position (see illustration on reverse side). An unbalanced door such as this can cause idrive® or Torquemaster® Plus operation problems.







# TorqueMaster® Plus Reset Instructions Continued...

To adjust spring(s), only add or remove a maximum of 3/10 of a turn (three teeth of ratchet wheel) at a time. Both sides need to be adjusted equally on double spring doors.

**NOTE:** Single spring applications require no spring winding on left hand side. Clamp a pair of vice clamps on the vertical tracks just above the second roller on one side and just below the second roller on the other side. This will prevent the door from raising or lowering while adjusting the spring(s).

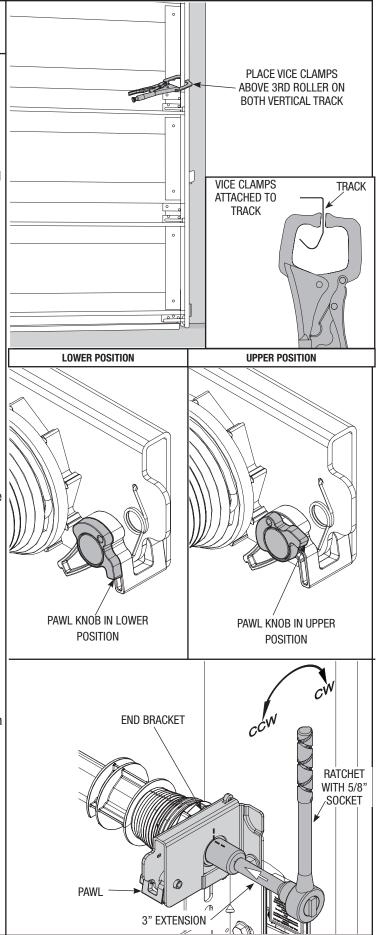
#### **⚠ WARNING**

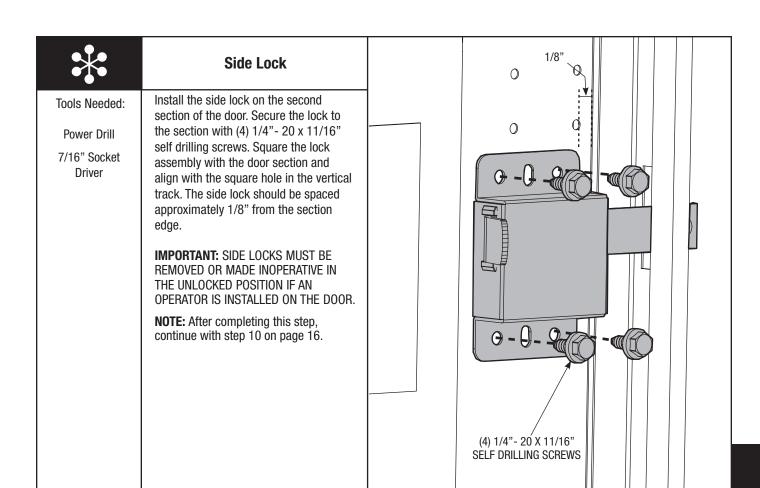
PRIOR TO WINDING OR MAKING
ADJUSTMENTS TO THE SPRINGS, ENSURE
YOU'RE WINDING IN THE PROPER
DIRECTION AS STATED IN THE
INSTALLATION INSTRUCTIONS.
OTHERWISE THE SPRING FITTINGS MAY
RELEASE FROM SPRING IF NOT WOUND
IN THE PROPER DIRECTION AND COULD
RESULT IN SEVERE OR FATAL INJURY.

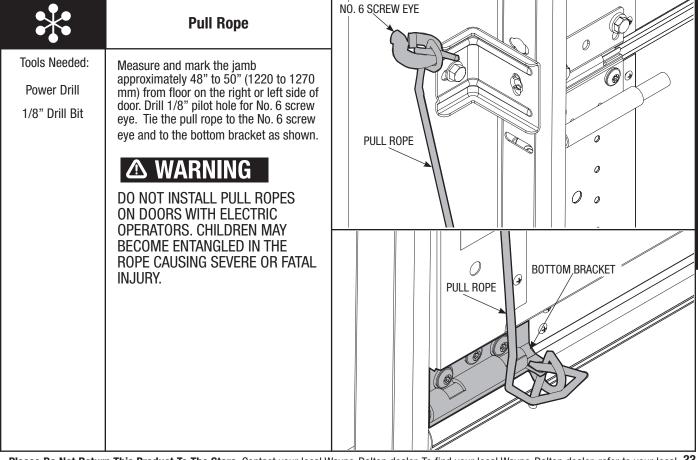
To Add Spring Tension: The ratchet wheel is made of 10 teeth. To add spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three "clicks".

To Remove Spring Tension: To remove spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side and clockwise on the left hand side. Place the wrench onto the winding shaft. Pull down on the ratchet to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the ratchet wrench to be rotated upward by the spring tension. Release the pawl to allow it to engage with the ratchet wheel.

Remove the vice clamps from the vertical tracks, re-check door balance and adjust if necessary. When door is balanced and adjusted properly, place the ratchet pawl knobs in the active position (lower position).







#### **Trolley Operator**

Tools Needed:

None

Align hole in the appropriate arm with holes in operator bracket tabs. Insert 5/16" x 1-1/4" clevis pin, making sure hole in clevis pin is outside of second tab of operator bracket. Insert hairpin cotter into clevis pin hole and spread hairpin cotter to ensure it will secure assembly. Operator must be tested at time of installation and monthly there after to ensure that door reverses on contact with 2" x 4" board laid flat under the door. Failure to pass this test requires immediate adjustments or repairs.

#### **△** WARNING

#### FAILURE TO MAKE ADJUSTMENTS OR REPAIRS, IF NECESSARY, CAN RESULT IN SEVERE OR FATAL INJURY.

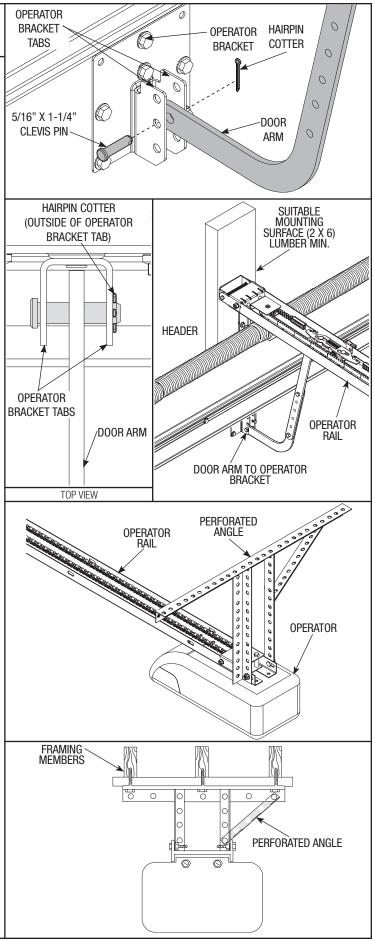
If your operator is equipped with a photoelectric eye system, then this must be tested at the same time to ensure that door does not close and a closing door opens, if photoelectric eye system is obstructed. Failure to pass this test requires immediate adjustments or repairs.

#### **⚠ WARNING**

FAILURE TO MAKE ADJUSTMENTS OR REPAIRS, IF NECESSARY, CAN RESULT IN SEVERE OR FATAL INJURY.

- Install operator rail 1/2" to 1"
   (13 mm 38 mm) above high arc of top section of the door.
- 2. Mount operator to ceiling so that 1" to 1-1/2" (25 38 mm) clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).
- 3. Attach door arm to operator bracket installed in Step 9.
- 4. Attach operator rail to suitable mounting surface, 2" x 6" lumber minimum.
- 5. Attach operator to ceiling using perforated angle.

IMPORTANT! PERFORATED ANGLE MUST BE SECURELY ATTACHED TO SOUND FRAMING MEMBER(S).



#### **Cleaning Your Steel And Fiberglass Garage Door**

#### **IMPORTANT:** DO NOT USE A PRESSURE WASHER ON GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight.

Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

#### The following cleaning solution is recommended:

A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water will aid in the removal of most dirt.

**NOTES:** The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

**NOTES:** Be sure to clean behind weather stripping on both sides and top of door.

CAUTION: NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

#### **GLASS CLEANING INSTRUCTIONS**

Clean with a mild detergent solution (same as above) and a soft cloth. After cleaning, rinse thoroughly.

#### ACRYLIC CLEANING INSTRUCTIONS

Clean acrylic glazing with nonabrasive soap or detergent and plenty of water. Use your bare hands to feel and dislodge any caked on particles. A soft, grit-free cloth, sponge or chamois may be used to wipe the surface. Do not use hard or rough cloths that will scratch the acrylic glazing. Dry glazing with a clean damp chamois.

**NOTE:** DO NOT USE any window cleaning fluids, scouring compounds, gritty cloths or solvent-based cleaners of any kind.

#### **Steel Preparation For Painting**

#### **STEEL (SURFACE PREPARATION FOR PAINTING)**

Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a fine steel wool pad, saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose particles and any soapy film residue.

Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded with 0000 steel wool or No. 400 sand paper to create a smoother surface. Care must be taken to not expose the substrate under the paint. Once the substrate is exposed, the likelihood for rusting is greatly increased.

If substrate is exposed, it must be treated to prevent rust from forming. Sand the exposed area lightly and paint with a high quality metal primer, specifically intended for galvanized surfaces, to protect the area from corrosion. Allow for drying time on primer can label before applying topcoat.

The surface of the factory-applied finish, that is being painted, must not be too smooth, or the paint will not adhere to it. It is advisable to test in an inconspicuous area, to evaluate adhesion. If poor adhesion is observed, surface preparation for painting the factory-applied finish must be repeated until desired results are achieved. Again, care must be taken to not expose the substrate under the paint.

#### STEEL (PAINTING)

After surface has been properly prepared, it must be allowed to dry thoroughly, and then coated immediately with premium quality latex house paint. Follow paint label directions explicitly. Oil base or solvent base paints are not recommended. Please note that if substrate is exposed and not properly primed, painting with latex paint may cause accelerated rusting of the steel in the exposed area.

#### NOTES:

- 1. This Limited Warranty will be voided if the original finish is painted over, unless Manufacturer's preparation and painting instructions are followed explicitly.
- 2. Consult a professional coatings contractor if in doubt about any of the above directions.
- 3. Follow directions explicitly on the paint container labels for proper applications of coatings and disposal of containers. Pay particular attention to acceptable weather and temperature conditions in which to paint.

#### **Fiberglass Refinishing And Or Finishing**

#### Refinishing

The top coat on factory finished door may require a re-coat after 1-3 years if the surface appears chalky or faded. Reapply a top coat as follows: (Always test on a small area prior to top coating the entire door)

1. Clean surfaces with soap and water, mineral spirits or naptha.

**NOTE:** Light scuffing of surface may be required using Scotch-Brite<sup>™</sup> pads.

2. Apply a commercial brand of exterior grade top coat following the manufacturer instructions.

#### **Finishing**

It is recommended that the door be purchased pre-finished due to the size of the door, the required spray equipment and the quality problems that could result. Wayne-Dalton assumes no liability for non-factory finished doors. If finishing is performed, use exterior commercial grade finishing kits approved for use on fiberglass or commercially available exterior grade water based or oil based paint. The customer assumes all liability for the finishing.

#### Lifetime Limited Warranty Model 9800

Subject to the terms and conditions contained in this Lifetime Limited Warranty, Wayne-Dalton ("Manufacturer") warrants the sections of the door for as long as you own the door with the exception of the items that follow which is described at the top of this page. These exceptions will be warranted for a period of <u>THREE (3) YEARS</u> from the date of installation against:

- (i) Delamination of the fiberglass skin or peeling of the original factory-applied coating on the door as a result of a defect in the original fiberglass skin where the door sections and the original fiberglass skin and factory-applied coating: (a) have not been subjected to adverse atmospheric conditions or contaminates (such as salt water or other marine environment, or to toxic or abrasive substances, including those in the air); (b) have been maintained in compliance with Manufacturer's recommendations; and (c) have not been subject to physical abrasion, impacted by a hard objects, or have been punctured.
- (ii) The door becoming inoperable due to rust-through of the steel skin backer from the core of the door section, caused by cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.
- (iii) Peeling, cracking, chalking or fading of the factory-applied coating, from the time of installation. If the door is re-stained or re-painted, the warranty for the factory-applied coating is void.

The Manufacturer warrants the garage door hardware (except springs) and the tracks of the above-described door, for as long as you own the door, against defects in material and workmanship, subject to all the terms and conditions below.

The Manufacturer warrants those component parts of the door not covered by the preceding provisions of this Lifetime Limited Warranty against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation.

After a period of **TWENTY (20) YEARS**, from time of installation, replacement of Lifetime Limited Warranty materials will be pro-rated at 50 per cent of Manufacturer's published list pricing at time of claim, and you must pay this amount.

This Limited Warranty is extended only to the person who purchased the product and continues to own the premises (where the door is installed) as his/her primary residence ("Buyer"). This Limited Warranty does not apply to residences other than primary, or to commercial or industrial installations, or to installations on rental property (even when used by a tenant as a residence). This Limited Warranty is not transferable to any other person (even when the premises is sold), nor does it extend benefits to any other person. As a result this Limited Warranty does NOT apply to any person who purchases the product from someone other than an authorized Wayne-Dalton dealer or distributor.

The Manufacturer will not be responsible for any damage attributable to improper storage, improper installation, or any alteration of the door or its components, abuse, damage from corrosive fumes or substances, salt spray or saltwater air, fire, Acts of God, failure to properly maintain the door, or attempt to use the door, its components or related products for other than its intended purpose and its customary usage. This Limited Warranty does not cover ordinary wear.

This Limited Warranty will be voided if any holes are drilled into the door, other than those specified by the Manufacturer.

THIS LIMITED WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS ACT. NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WILL EXTEND BEYOND THE TIME PERIOD SET FORTH IN UNDERSCORED BOLD FACE TYPE IN THIS LIMITED WARRANTY, ABOVE.

• Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Any claim under this Limited Warranty must be made in writing, within the applicable warranty period, to the dealer from which the product was purchased. Unless the dealer is no longer in business, a written claim to the Manufacturer will be the same as if no claim had been made at all.

At the Manufacturer's option, pursuant to the dealer having notified the Manufacturer of a warranty claim, a service representative may inspect the product on site, or Buyer may be required to return the product to the Manufacturer at Buyer's expense. Buyer agrees to cooperate with any representative of the Manufacturer and to give such representative full access to the product with the claimed defect and full access to the location of its installation.

If the Manufacturer determines that the claim is valid under the terms of this Limited Warranty, the Manufacturer will cause the defective product to be repaired or replaced. The decision about the manner in which the defect will be remedied will be at the discretion of the Manufacturer, subject to applicable law. THE REMEDY WILL COVER ONLY MATERIAL. THIS LIMITED WARRANTY DOES NOT COVER OTHER CHARGES, SUCH AS FIELD SERVICE LABOR FOR REMOVAL, INSTALLATION, PAINTING, SHIPPING, ETC.

Any repairs or replacements arranged by Manufacturer will be covered by (and subject to) the terms, conditions, limitations and exceptions of this Limited Warranty; provided, however, that the installation date for the repaired or replaced product will be deemed to be the date the original product was installed, and this Limited Warranty will expire at the same time as if there had been no defect. If a claim under this Limited Warranty is resolved in a manner other than described in the immediately preceding paragraph, then neither this Limited Warranty nor any other warranty from the Manufacturer will cover the repaired or replaced portion of the product.

THE REMEDIES FOR THE BUYER DESCRIBED IN THIS LIMITED WARRANTY ARE EXCLUSIVE and take the place of any other remedy. The liability of the Manufacturer, whether in contract or tort, under warranty, product liability, or otherwise, will not go beyond the Manufacturer's obligation to repair or replace, at its option, as described above. THE MANUFACTURER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, including (but not limited to) damage or loss of other property or equipment, personal injury, loss of profits or revenues, business or service interruptions, cost of capital, cost of purchase or replacement of other goods, or claims of third parties for any of the foregoing.

Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to
vou.

No employee, distributor, dealer, representative, or other person has the authority to modify any term or condition contained in this Limited Warranty or to grant any other warranty on behalf of or binding on the Manufacturer, and anyone's attempt to do so will be null and void.

Buyer should be prepared to verify the date of installation to the satisfaction of the Manufacturer.

The rights and obligations of the Manufacturer and Buyer under this Limited Warranty will be governed by the laws of the State of Ohio, USA, to the extent permitted by law.

This Limited Warranty gives you specific legal rights and you may also have other rights, which may vary from State to State.

Thank you for your purchase www.Wayne-Dalton.com